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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**( Not for submission under 37 CFR 1.99)**

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| Application Number | 10045674 |
| Filing Date | 2001-10-25 |
| First Named Inventor | Robert Ladner et al. |
| Art Unit | 1639 |
| Examiner Name | Jon D. Epperson |
| Attorney Docket Number | D2033-708931 |

**U.S.PATENTS**

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|---|---|---|---|---|---|---|---|---|
| | 1 | 9906834 | WO | | 1999-02-11 | IXSYS Incorporated | | ☐ |
| | 2 | 9708320 | WO | | 1997-03-06 | Morphosys Gesellschaft | | ☐ |
| | 3 | 0179481 | WO | A2 | 2001-10-25 | Dyax Corp. | | ☐ |

/Christian Boesen/ 08/23/2010



ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.B./

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|---|---|---|---|
| | 1 | AUJAME et al., "High affinity human antibodies by phage display", Human Antibodies, 8(4):155-168 (1997). | ☐ |
| | 2 | BARBAS et al., "Semisynthetic combinatorial antibody libraries: a chemical solution to the diversity problem," Proceedings of the National Academy of Sciences of USA, 89:4457-4461 (1992). | ☐ |
| | 3 | BALINT et al., "Antibody engineering by parsimonious mutagenesis," Gene, 1993, Vol. 137, pp. 109-118. | ☐ |
| | 4 | CORBETT et al., "Sequence of the human immunoglobulin diversity (D) segment locus: a systematic analysis provides no evidence for the use of DIR segments, inverted D segments, "minor" D segments or D-D recombination", J. Mol. Biol. 270(4): 587-597 (1997). | ☐ |
| | 5 | HOOGENBOOM et al., "Antibody phage display technology and its applications," Immunotechnology, 4(1):1-20 (1998). | ☐ |
| | 6 | JIRHOLT et al., "Exploiting sequence space: shuffling in vivo formed complementarity determining regions into a master framework," Gene, 1998, Vol. 215, No. 2, pp. 471-476. | ☐ |
| | 7 | KNAPPIK et al., "Fully Synthetic Human Combinatorial Antibody Libraries (HuCAL) Based on Modular Consensus Frameworks and CDRs Randomized with Trinucleotides", J. Mol. Biol., 296:57-86 (2000). | ☐ |
| | 8 | KRUIF et al., "Selection and application of human single chain Fv antibody fragments from a semi-synthetic phage antibody display library with designed CDR3 regions", J. Mol. Biol., 248(1):97-105 (1995). | ☐ |
| | 9 | POWELL et al., "Construction, assembly and selection of combinatorial antibody libraries", pp. 155-172 in Genetic Engineering with PCR (Horton and Tait, Eds. 1998), Vol. 5 of The Current Innovations in Molecular Biology series, Horizon Scientific Press. | ☐ |

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|---|---|---|---|
| | 10 | RYU et al., "Recent Progress in Biomolecular Engineering", Biotechnology Progress, 2000, Vol. 15, No. 1, pp. 2-16. | ☐ |
| | 11 | SAVIRANTA et al., "Engineering the steroid-specificity of an anti-17B-estradiol Fab by random mutagenesis and competitive phage panning," Protein Engineering, 1998, Vol. 11, No. 2, pp. 143-152. | ☐ |
| | 12 | SHEETS et al., "Efficient construction of a large nonimmune phage antibody library: The production of high-affinity human single-chain antibodies to protein antigens," Proc. Natl. Acad. Sci. USA, 1998, Vol. 95, pp. 6157-6162. | ☐ |
| | 13 | SHORT et al., "Contribution of Antibody Heavy Chain CDR1 to Digoxin Binding Analyzed by Random Mutagenesis of Phage-displayed Fab 26-10", Journal of Biol. Chem., Vol. 270 (1):28541-28550 (1995). | ☐ |
| | 14 | SODERLIND et al., "Domain libraries: Synthetic diversity for de novo design of antibody V-regions", Gene, 1995, Vol. 160, No. 2, pp. 269-272. | ☐ |
| | 15 | ZUCCONI et al., "Domain repertoires as a tool to derive protein recognition rules", 2000, FEBS Letters, Vol. 480, No. 1, pp. 49-54. | ☐ |

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| Examiner Signature | /Christian Boesen/ | Date Considered | 08/23/2010 |
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